

What is claimed is:

1. A radio frequency switch comprising:

a first diode connected between a transmission terminal and an antenna terminal;

5 a low pass filter connected between said first diode and said antenna terminal, said low pass filter and said first diode being disposed in series;

a high pass filter connected between said low pass filter side of said first diode and a reception terminal; and

10 a second diode having one end grounded and other end connected between said reception terminal and said high pass filter.

2. The radio frequency switch of claim 1,

15 wherein said high pass filter shifts a phase of a transmission signal by 90 degrees when said second diode conducts.

3. The radio frequency switch of claim 1,

20 wherein said low pass filter includes an inductor and a capacitor, each said inductor and said capacitor being discrete chip component.

4. The radio frequency switch of claim 1,

25 wherein said low pass filter and said high pass filter are composed of an inductor and a capacitor formed in a dielectric substrate.

5. The radio frequency switch of claim 1,

wherein said low pass filter has a attenuation pole at frequency of about 2 times of pass-band frequency in transmission characteristic.

5 6. The radio frequency switch of claim 1, further comprising:

an inductor connected parallel to said high pass filter for direct-current coupling of said first diode and said second diode.

10 7. The radio frequency switch of claim 1,
wherein said high pass filter is composed of a first capacitor, a second capacitor connected in series to said first capacitor, and an inductor having one end grounded and other end connected to the connection point of said first capacitor and said second capacitor.

15 8. The radio frequency switch of claim 1,
wherein said high pass filter has a attenuation pole in transmission characteristic.

20 9. A wireless communication apparatus comprising:
a first diode connected between a transmission terminal and an antenna terminal;

a low pass filter connected between said first diode and said antenna terminal, said low pass filter and said first diode being
25 disposed in series;

a high pass filter connected between the low pass filter side of the first diode and a reception terminal; and

a second diode having one end grounded and other end

connected between said reception terminal and said high pass filter.